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EXAMINER

CHEN, SHIN HON

ART UNIT

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2131

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/518,722

Applicant(s)

COOK ET AL.

Examiner

Shin-Hon Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13, 16-22, 26-30, 32 and 36-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 16-22, 26-30, 32 and 36-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1-13, 16-22, 26-30, 32, and 36-56 have been examined.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-5, 7-12, 16-21, 36-38, 40-41, 44-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tal U.S. Pat. No. 4975969 (hereinafter Tal) in view of Morrison et al. U.S. Pat. No. 6522772 (hereinafter Morrison) and further in view of Fukumitsu et al. U.S. Pat. No. 6141052 (hereinafter Fukumitsu).

As per claim 1, 20, and 36, Tal discloses a security method of controlling access of human beings to a secure item (Tal: column 1 lines 8-14), the method comprising the steps of (1) retrieving feature data from an identification object, said retrieved feature data representative of facial features of a first person (Tal: column 3 lines 49-50); (2) capturing facial features of a second person and generating feature data that is representative of facial features of the second person (Tal: column 3 lines 45-58; column 10 lines 57-60) and (3) comparing said retrieved feature data of said first person to said applicant feature data to determine security access for said second person (Tal: column 3 lines 51-53). Tal does not explicitly disclose retrieving an identification code and retrieving feature data from a memory using said identification code. However, Morrison discloses inputting user ID to retrieve biometric information from database

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to authenticate user (Morrison: abstract, column 6 line 61 – column 7 line 9, column 11 line 64 – column 12 line 30). It would have been obvious to one having ordinary skill in the art to authenticate users through biometrics comparison by storing the biometrics information on the card or in database as long as the biometrics information used for authentication is communicated securely. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Morrison within the system of Tal because retrieving biometrics information from a database utilizing an ID code is well known in the art for biometrics authentication. Tal as modified does not explicitly disclose taking pictures at different positions around said second person's head. However, Fukumitsu discloses taking pictures at different positions around said second person's head (Fukumitsu: figure 2 and column 4 lines 18-26 and column 6 lines 61-65). It would have been obvious to one having ordinary skill in the art to use rotate cameras to be in different positions to capture images of the person because different cameras can be used to capture images of the person as a design choice. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Fukumitsu within the combination of Tal-Morrison because it allows image pickup range to be flexible.

As per claim 2, Tal further discloses (4) granting access to said second person if agreement between said retrieved feature data and said second person feature data is above a threshold (Tal: column 11 lines 36-56); and (5) denying access to said second person if agreement between said retrieved feature data and said second person feature data is below said threshold (Tal: column 11 lines 13-35).

As per claim 3, Tal as modified further discloses step (1) of claim 1 comprises the step of reading a magnetic medium to retrieve said identification code (Morrison: column 8 lines 32-39).

As per claim 4, Tal as modified further discloses step (1) of claim 1 comprises the step of reading an optical medium to retrieve said identification code (Tal: column 1 line 57-58).

As per claim 5, Tal further discloses step (1) of claim 1 comprises the step of reading a bar code to retrieve said identification code (Tal: column 9 lines 11-15).

As per claim 7, Tal further discloses step (2) of claim 1 comprises the steps of (a) generating image data from said picture (Tal: column 6 line 56: information obtained by the camera); (b) determining a first separation distance on a face of said second person using said image data (Tal: column 2 line 45 – column 3 line 16); (c) determining a second separation distance on said face of said second person using said image data (Tal: column 2 line 45 – column 3 line 16); and (d) normalizing said second separation distance relative to said first separation distance resulting in a ratio that is included in said second person feature data (Tal: column 2 line 45 – column 3 line 16; column 10 lines 33-37).

As per claim 8, Tal further discloses step (2) of claim 1 comprises the steps of (a) taking a picture of said second person, and generating image data from said picture (Tal: column 6 line 56: information obtained by the camera); (b) determining an eye-to-eye separation on a face of said second person using said image data (Tal: column 3 line 21-44; column 4 line 13 – column 6 line 49); (c) determining a second separation distance on said face of said applicant using said image data (Tal: column 3 line 21-44; column 4 line 13 – column 6 line 49); and (d) normalizing said second separation distance relative to said eye-to-eye separation resulting in a

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ratio that is included in said second person feature data (Tal: column 3 line 21-44; column 4 line 13 – column 6 line 49; column 10 lines 33-37).

As per claim 9, Tal further discloses step (2) of claim 1 comprises the steps of (a) taking a picture of said second person, and generating image data from said picture (Tal: column 6 line 56: information obtained by the camera); (b) determining an eye-to-eye separation on a face of said second person using said image data (Tal: column 3 line 21-44; column 4 line 13 – column 6 line 49); (c) determining a forehead-to-chin separation on said face of said second person using said image data (Tal: column 3 line 21-44; column 4 line 13 – column 6 line 49); and (d) normalizing said forehead-to-chin separation relative to said eye-to-eye separation resulting in a ratio that is included in said feature data (Tal: column 3 line 21-44; column 4 line 13 – column 6 line 49; column 10 lines 33-37).

As per claim 10, Tal further discloses step (2) of claim 1 comprises the steps of (a) taking a picture of said second person, and generating image data from said picture (Tal: column 6 line 56: information obtained by the camera); (b) determining an eye-to-eye separation of said second person using said image data (Tal: column 3 line 21-44; column 4 line 13 – column 6 line 49); (c) determining an ear-to-ear separation on said face of said applicant using said image data (Tal: column 3 line 21-44; column 4 line 13 – column 6 line 49); and (d) normalizing said ear-to-ear separation relative to said eye-to-eye separation resulting in a ratio that is included in said second person feature data (Tal: column 3 line 21-44; column 4 line 13 – column 6 line 49; column 10 lines 33-37).

As per claim 11, Tal further discloses step (2) of claim 1 comprises the steps of (a) taking a picture of said second person (Tal: column 6 line 56: information obtained by the camera); and

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(b) determining a separation distance between a first and second feature on a face of said second person, said second person feature data representative of said separation distance (Tal: column 3 lines 1-3).

As per claim 12, Tal further discloses step (b) of claim 11 comprises the steps of (i) locating a first eye and a second eye of said second person (Tal: column 10 lines 23-35); and (ii) determining an eye-to-eye separation between said first and second eye (Tal: column 10 lines 23-35).

As per claim 13, Tal further discloses the method of claim 11 comprises the steps of: (c) determining a second separation distance between a third feature and a fourth feature on the face of said second person (Tal: column 3 lines 1-3); and (d) normalizing said second separation distance relative to said first separation distance (Tal: column 10 lines 23-35).

As per claim 16, Tal as modified further discloses claim 1 comprises the steps of: (4) capturing said facial features of said first person to generate said card feature data (Tal: figure 4a and column 10 lines 57-60); and (5) storing said first person data in said memory prior to step (1) (Morrison: column 11 line 64 – column 12 line 15: retrieving the biometric information from the database indicates that the biometric information was stored in the database prior to authentication).

As per claim 17, Tal further discloses step (3) of claim 1 comprises the step of comparing a normalized forehead-to-chin separation of said first person with a normalized forehead-to-chin separation of said second person (Tal: column 10 line 53 – column 11 line 12).

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As per claim 18, Tal further discloses step (3) of claim 1 comprises the step of comparing a normalized nostril-to-nostril separation of said first person with a normalized nostril-to-nostril separation of said second person (Tal: column 10 line 53 – column 11 line 12).

As per claim 19, Tal further discloses step (3) of claim 1 comprises the step of comparing a normalized feature separation of said first person with a normalized feature separation of said second person (Tal: column 10 line 53 – column 11 line 12; column 11 lines 36-56).

As per claim 21, Tal further discloses the method of claim 20 further comprising the steps of: (4) granting access to the applicant if there is sufficient agreement between said applicant facial features and said card owner facial features (Tal: column 11 lines 36-56); and (5) denying access to the applicant if there is there is not sufficient agreement between said applicant facial features and said card owner facial features (Tal: column 11 lines 13-35).

As per claim 37, Tal as modified further discloses said medium reader of claim 36 comprises a magnetic reader for reading a magnetic card medium on said access card to retrieve said identification code (Tal: column 1 line 60; column 9 lines 11-52; column 10 lines 54-55; Morrison: column 8 lines 35-38).

As per claim 38, Tal further discloses said medium reader of claim 36 comprises a bar code reader for reading a bar code medium on said access card to retrieve said identification code (Tal: column 9 lines 11-52; column 10 lines 54-55; Morrison: column 8 lines 35-38).

As per claim 40, Tal further discloses the apparatus of claim 36, wherein said feature extractor comprises a camera for taking a picture of the applicant (Tal: figure 4b and column 10 lines 58-59); and a second processor for generating said applicant feature data based on image data that is representative of said picture, said processor determining a separation distance based



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on a first facial feature and a second facial feature, said applicant feature data including said separation distance (Tal: figure 4b and column 10 lines 61-67).

As per claim 41, Tal further discloses the apparatus of claim 39 comprises a means for generating said image data from said picture (Tal: column 10 line 61 and figure 4b).

As per claim 44, Tal further discloses a system for determining security access of an applicant, comprising: a medium reader, for reading an access card medium to retrieve card feature data, said card feature data representative of facial features of a card owner (Tal: figure 4b and column 10 lines 54-55); a camera for taking a picture of the applicant, said camera including a means for generating image data representative of said picture (Tal: figure 4b and column 10 lines 58-59); and a processor coupled to said medium reader and said camera, said processor including computer program code for causing said processor to determine if the applicant is the card owner using said image data of said applicant and said card feature data (Tal: column 10 line 52 – column 11 line 12), said computer program code comprising, first program code means for causing said processor to determine an applicant feature separation using said image data, said applicant feature separation representing a distance between a first feature and a second feature on a face of said applicant (Tal: column 10 line 62-67), second program code means for causing said processor retrieve a card owner feature separation using said card feature data, said card owner feature separation representing a distance between a first feature and a second feature on a face of said card owner (Tal: column 10 lines 26-30), and third program code means for causing said processor to compare said card owner feature separation to said applicant feature separation and determine agreement for security access (Tal: column 11 lines 10-12). Tal does not explicitly disclose retrieving an identification code and retrieving

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feature data from a memory using said identification code. However, Morrison discloses inputting user ID to retrieve biometric information from database to authenticate user (Morrison: abstract, column 6 line 61 – column 7 line 9, column 11 line 64 – column 12 line 30). It would have been obvious to one having ordinary skill in the art to authenticate users through biometrics comparison by storing the biometrics information on the card or in database as long as the biometrics information used for authentication is communicated securely. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Morrison within the system of Tal because retrieving biometrics information from a database utilizing an ID code is well known in the art for biometrics authentication. Tal as modified does not explicitly disclose taking pictures at different positions around said second person's head. However, Fukumitsu discloses taking pictures at different positions around said second person's head (Fukumitsu: figure 2 and column 4 lines 18-26 and column 6 lines 61-65). It would have been obvious to one having ordinary skill in the art to use rotate cameras to be in different positions to capture images of the person because different cameras can be used to capture images of the person as a design choice. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Fukumitsu within the combination of Tal-Morrison because it allows image pickup range to be flexible.

As per claim 45, Tal further discloses said program code means of claim 44 comprises fourth program code means for causing said processor grant access to the applicant if agreement is above a threshold (Tal: column 11 lines 12-56); and fifth program code means for causing said

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processor deny access to the applicant if agreement is below a threshold (Tal: column 11 lines 12-56).

As per claim 46, Tal further discloses said medium reader of claim 44 is a bar code reader (Tal: column 9 lines 11-15).

As per claim 47, Tal further discloses said card owner feature separation of claim 44 is normalized to an eye-to-eye separation of the card owner, and wherein said first program code means comprises program code means for causing said processor to determine an eye-to-eye separation of the applicant using the image data, and normalize said applicant feature separation relative to said eye-to-eye separation of the applicant (Tal: column 10 line 53 – column 11 line 12; column 11 lines 36-56).

As per claim 48, Tal further discloses said card owner feature separation of claim 44 is a normalized forehead-to-chin separation of the card owner, and wherein said applicant feature separation is a normalized forehead-to-chin separation of the applicant (Tal: column 10 line 53 – column 11 line 12; column 11 lines 36-56).

As per claim 49, Tal further discloses said card owner feature separation of claim 44 is a normalized nostril-to-nostril separation of the card owner, and wherein said applicant feature separation is a normalized nostril-to-nostril separation of the applicant (Tal: column 10 line 53 – column 11 line 12; column 11 lines 36-56).

As per claim 50, Tal further discloses said card owner feature separation of claim 44 is a normalized ear-to-ear separation of the card owner, and wherein said applicant feature separation is a normalized ear-to-ear separation of the applicant (Tal: column 10 line 53 – column 11 line 12; column 11 lines 36-56).

As per claim 51, Tal further discloses an access card for use with a security system, said access card comprising a storage medium that stores feature data representative of facial features associated with an owner of the access card (Tal: column 9 lines 11-65). Tal does not explicitly disclose an identification code associated with an owner of said access card, wherein said identification code catalogs feature data in a memory external to said access card. However, Morrison discloses that limitation (Morrison: abstract; column 6 line 61 – column 7 line 9, column 11 line 64 – column 12 line 30). It would have been obvious to one having ordinary skill in the art to authenticate users through biometrics comparison by storing the biometrics information on the card or in database as long as the biometrics information used for authentication is communicated securely. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Morrison within the system of Tal because retrieving biometrics information from a database utilizing an ID code is well known in the art for biometrics authentication. Tal does not explicitly disclose taking pictures at different positions around said second person's head. However, Fukumitsu discloses taking pictures at different positions around said second person's head (Fukumitsu: figure 2 and column 4 lines 18-26 and column 6 lines 61-65). It would have been obvious to one having ordinary skill in the art to use rotate cameras to be in different positions to capture images of the person because different cameras can be used to capture images of the person as a design choice. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Fukumitsu within the system of Tal because it allows image pickup range to be flexible.

As per claim 52, Tal further discloses said medium of claim 51 is a bar code (Tal: column 9 lines 11-34).

As per claim 53, Tal further discloses said feature data of claim 51 includes separation distances associated with said facial features of said card owner (Tal: column 9 lines 53-65; column 10 line 57 – column 11 line 17).

As per claim 54, Tal as modified further discloses the system of claim 36 further disclose said memory is in a remote location relative to at least one of said medium reader, said feature extractor, and said processor (Morrison: column 9 lines 44-50).

As per claim 55, Tal as modified discloses the system of claim 1. Tal as modified further discloses wherein the pictures are taken using a single rotating camera (Fukumitsu: figure 2 and column 4 lines 18-26).

4. Claims 6 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tal in view of Morrison and further in view of Fukumitsu as applied to claim 1 above, and further in view of Payne et al. U.S. Pat. No. 6072894 (hereinafter Payne).

As per claim 6, Tal as modified discloses a security method according to claim 1. Tal does not explicitly disclose the method of reading a 2-dimensional bar code to retrieve said identification code. However, Payne discloses that limitation (Payne: column 3 line 66 – column 4 line 6: uses an account holder photo, encoded into 2D barcode). It would have been obvious to one having ordinary skill in the art to combine the teachings of Payne within the system of Tal because it enhances the functionality of 1 dimensional bar code.

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As per claim 39, Tal discloses a security system according to claim 38. Tal does not explicitly disclose said bar code reader comprises a means for reading a 2 dimensional bar code. However, Payne discloses that limitation (Payne: column 3 line 66 – column 4 line 6: uses an account holder photo, encoded into 2D barcode). It would have been obvious to one having ordinary skill in the art to combine the teachings of Payne within the system of Tal because it a requirement to have a 2 dimensional bar code reader to read 2 dimensional bar code.

5. Claims 22, 26-30, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tal in view of Fukumitsu.

As per claim 22, Tal further discloses a method of determining if an applicant is, the owner of an access card for security access purposes (Tal: column 1 lines 8-14), the method comprising the steps of (1) reading a bar code on an access card, said bar code having feature data representative of facial features of a card owner, said feature data including a normalized forehead-to-chin separation distance of said card owner (Tal: column 2 line 45 – column 3 line 62, column 9 lines 11-15); (2) capturing facial features of an applicant and generating applicant feature data that is representative of said applicant facial features (Tal: figure 4a and column 10 lines 57-60), said step (2) comprising the steps of (a) taking a picture of the applicant (Tal: figure 4a and column 10 lines 57-60); (b) determining an eye-to-eye separation of the applicant using said picture (Tal: column 3 line 21-44; column 4 line 13 – column 6 line 49); and (c) determining a forehead-to-chin distance on a face of the applicant using said picture (Tal: column 3 line 21-44; column 4 line 13 – column 6 line 49; column 11 lines 7-12), and normalizing said forehead-to-chin distance to said eye-to-eye separation (Tal: column 2 line 45 – column 3 line 16; column

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10 lines 33-37); (3) comparing said applicant feature data to said card feature data to determine security access, comprising the step of comparing said normalized forehead-to-chin distance of said applicant with said normalized forehead-to-chin separation distance of said card owner included in said card feature data (Tal: column 10 line 53 – column 11 line 12). Tal does not explicitly disclose taking pictures at different positions around said second person's head. However, Fukumitsu discloses taking pictures at different positions around said second person's head (Fukumitsu: figure 2 and column 4 lines 18-26 and column 6 lines 61-65). It would have been obvious to one having ordinary skill in the art to use rotate cameras to be in different positions to capture images of the person because different cameras can be used to capture images of the person as a design choice. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Fukumitsu within the system of Tal because it allows image pickup range to be flexible.

As per claim 26, Tal further discloses a method of recording facial features of a person in a storage medium (Tal: column 9 line 65 – column 10 line 52), the method comprising the steps of (1) taking a picture of the person (Tal: figure 4a and column 10 lines 16-20), (2) generating feature data representative of facial features of the person (Tal: figure 4a and column 2 line 45 – column 3 line 44 and column 10 lines 22-25), and (3) writing said feature data to said storage medium (Tal: figure 4a and column 10 lines 33-52). Tal does not explicitly disclose forehead-to-chin separation distance. However, Tal discloses that other facial parameters might be applied. Therefore, it would have been an obvious matter of design choice to modify the reference to use forehead-to-chin separation distance, since the applicant has not stated using forehead-to-chin separation distance solves any stated problem or is for any particular purpose, it appears that the

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authentication process would work equally well using other facial parameters. Tal does not explicitly disclose taking pictures at different positions around said second person's head. However, Fukumitsu discloses taking pictures at different positions around said second person's head (Fukumitsu: figure 2 and column 4 lines 18-26 and column 6 lines 61-65). It would have been obvious to one having ordinary skill in the art to use rotate cameras to be in different positions to capture images of the person because different cameras can be used to capture images of the person as a design choice. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Fukumitsu within the system of Tal because it allows image pickup range to be flexible.

As per claim 27, Tal further discloses step (3) of claim 26 comprises the step of writing said feature data to a magnetic medium on an access card (Tal: column 1 line 60).

As per claim 28, Tal further discloses step (3) of claim 26 comprises the step of writing said feature data to an optical storage medium on an access card (Tal: column 1 line 57-58).

As per claim 29, Tal further discloses step (3) of claim 26 comprises the step of writing said feature data to a bar code on an access card (Tal: column 9 lines 11-15).

As per claim 30, Tal further discloses step (3) of claim 26 comprises the steps of (a) writing an ID code associated with the person to an access card (Tal: column 10 lines 33-52); and (b) storing said feature data in a memory that is cataloged using said ID code (Tal: column 10 lines 33-52).

As per claim 32, Tal further discloses step (2) of generating feature data of claim 26 comprises the steps of (a) determining an eye-to-eye distance using said picture (Tal: column 2 line 45 – column 34 line 20); (b) determining a forehead-to-chin using said picture (Tal: column



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2 line 45 – column 3 line 16); and (c) normalizing said forehead-to-chin separation distance relative to said eye-to-eye separation distance resulting in a ratio that is included in said feature data (Tal: column 2 line 45 – column 3 line 16; column 10 lines 33-37). Tal does not explicitly disclose forehead-to chin separation distance. However, Tal discloses that other facial parameters might be applied. Therefore, it would have been an obvious matter of design choice to modify the reference to use forehead-to-chin separation distance, since the applicant has not stated using forehead-to-chin separation distance solves any stated problem or is for any particular purpose, it appears that the authentication process would work equally well using other facial parameters.

6. Claims 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tal in view of Morrison and further in view of Fukumitsu as applied to claim 41 above, and further in view of Schwab U.S. Pat. No. 5973731 (hereinafter Schwab).

As per claim 42, Tal as modified discloses the apparatus of claim 41. Tal does not explicitly disclose said means for generating said image data comprises a computer scanner. However, Schwab discloses that limitation (Schwab: column 4 lines 24-38). It would have been obvious to one having ordinary skill in the art to combine the teachings of Schwab within the system of Tal because the computer scanner would allow the picture to be digitized.

As per claim 43, Tal discloses the apparatus of claim 41. Tal does not explicitly disclose said camera is a digital camera, said digital camera generating said image data from said picture. However, Schwab discloses that limitation (Schwab: column 4 lines 24-38). It would have been obvious to one having ordinary skill in the art to combine the teachings of Schwab within the

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system of Tal because digital camera allows the system to store the digitized data without a digitizer disclosed by Tal.

7. Claim 56 rejected under 35 U.S.C. 103(a) as being unpatentable over Tal in view of Morrison and further in view of Fukumitsu and further in view of Seeley et al. U.S. Pat. No. 6069655 (hereinafter Seeley).

As per claim 56, Tal as modified discloses the system of claim 1. Tal as modified does not explicitly disclose wherein the pictures are taken using multiple cameras that take pictures at multiple angles. However, Seeley discloses having plurality of camera located about the premises (Seeley: abstract and column 22 lines 19-21). It would have been obvious to one having ordinary skill in the art to use multiple cameras to take multiple pictures of a user at different angles to ensure that the camera has multiple views of the user instead of just front facial view. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Seeley within the combination of Tal-Morrison-Fukumitsu because it provides allows the system to more clearly identify the object and analyze the object's characteristics.

### ***Response to Arguments***

8. Regarding applicant's remarks, applicant argues that there is no motivation is combine the references because they are not of analogous art. In response to applicant's argument that the references are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem

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with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the camera is used to take pictures of the person to be authenticated thus reference indicating the use of camera to generate digital image can be combined to achieve expected result.

9. Applicant further argues that the references do not disclose taking pictures at different positions around the applicant's head. However, Fukumitsu discloses a rotating camera that can change positions to take pictures around a person's head (Fukumitsu: figure 2 and column 4 lines 18-26 and column 6 lines 61-65). Therefore, applicant's argument is respectfully traversed.

10. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections. The present invention is to authenticate based on facial features, not on the use of cameras to capture images of the person. Therefore, the novelty of the present invention should focus on authenticating facial features.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shin-Hon Chen whose telephone number is (571) 272-3789. The examiner can normally be reached on Monday through Friday 8:30am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SC

Shin-Hon Chen  
Examiner  
Art Unit 2131

*SHC*  
Primary Examiner  
AU 2131  
9/23/05